



# RESEARCH, DEVELOPMENT and TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT (QPR)

Wisconsin Department of Transportation (WisDOT)  
DT1241 5/2014

## INSTRUCTIONS:

Research principal investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

<b>WisDOT Research Program Category</b> <input type="checkbox"/> Policy Research <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Other: _____		<b>Report Period</b> (enter year and check which quarter) Year: <u>2014</u> <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input checked="" type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)	
<b>Project Title</b> <u>Critical Factors Affecting Asphalt Concrete Durability</u>		<b>WisDOT Project ID</b> <u>0092-14-06</u>	
<b>Principal Investigator Name</b> <u>Ramon Bonaquist</u>	<b>Project Oversight Committee Chair Name</b> <u>Carl Johnson</u>	<b>Project Start Date (m/d/yyyy)</b> <u>9/18/2013</u>	
<b>(Area Code) Telephone Number</b> <u>703-444-4200</u>	<b>(Area Code) Telephone Number</b> <u>414-466-0644</u>	<b>Original End Date (m/d/yyyy)</b> <u>6/17/2015</u>	
<b>Email Address</b> <u>aatt@erols.com</u>	<b>Email Address</b> <u>carlj@starkasphalt.com</u>	<b>Current End Date (m/d/yyyy)</b> <u>6/17/2015</u>	

## Project Schedule Status (check one)

☒ On Schedule ☐ On Revised Schedule ☐ Ahead of Schedule ☐ Behind Schedule

## Project Budget Status

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$175,000.00	\$11,474.48	\$27,729.98	15%	15%

## Project Description

The objective of this project is to develop recommended revisions to WisDOT specifications and guidance documents to improve the durability of asphalt concrete mixtures. The project will focus on changes to the composition of asphalt mixtures that WisDOT should consider to improve durability. The recommendations will be based on promising findings from completed research addressing asphalt concrete durability and the results of a laboratory study formulated specifically to evaluate the effectiveness of these promising findings for Wisconsin materials and environmental conditions. The project includes six tasks:

- Synthesis of Current Research.** Research on the durability of asphalt mixtures completed since NCHRP Projects 9-25 and 9-31 will be reviewed to identify recommendations for improving mixture durability.
- Work Plan Development.** Appropriate laboratory experiments will be designed based on the findings of Task 1.
- Interim Presentation and Project Memorandum.** The findings of Task 1 and the work plan developed in Task 2 will be presented to the Technical Oversight Committee (TOC).
- Execution of Work Plan and Analysis of Results.** The experiments in the work plan approved by the TOC will be conducted and the results analyzed.
- Project Deliverables.** A report documenting the project and making recommendations concerning changes to WisDOT specifications to improve durability will be prepared.
- Final Report and Project Closeout Activities.** The report and recommendations will be presented to the TOC and the report will be revised based on comments from the TOC.

## Progress This Quarter (includes meetings, work plan status, contract status, significant progress, etc.)

**Task 1. Synthesis of Current Research.** This task was during the first quarter of 2014. The findings are documented in the Interim Report submitted in Task 3.

**Task 2. Work Plan Development.** This task was completed during the first Quarter of 2014. The proposed experiment is documented in the Interim Report submitted in Task 3.

**Task 3. Interim Presentation and Project Memorandum.** The Interim Report was submitted on April 23, 2014. The Interim Report presentation was scheduled for July 1, 2014.

**Task 4. Execution of Work Plan and Analysis of Results.** No work has been performed on this task.

**Task 5. Project Deliverables.** The Interim Report for Tasks 1 and 2 will be included in the final report for the project. No additional work on project deliverables was completed.

**Task 6. Final Report and Project Closeout Activities.** No work has been performed on this task.

#### **Anticipated Work Next Quarter**

**Task 1. Synthesis of Current Research.** This task has been completed.

**Task 2. Work Plan Development.** This task has been completed.

**Task 3. Interim Presentation and Project Memorandum.** The Interim Report presentation will be conducted on July 1, 2014.

**Task 4. Execution of Work Plan and Analysis of Results.** Sampling of materials for the laboratory testing will be initiated and completed next quarter after the meeting with the POC and the identification of appropriate mixtures and binders.

**Task 5. Project Deliverables.** Documentation of the final experimental design and the materials for the laboratory testing will be completed.

**Task 6. Final Report and Project Closeout Activities.** No work is planned for this task.

#### **Circumstances Affecting Project or Budget**

The project is behind schedule. The original schedule include in the proposal was based on an anticipate start date of August 1 and the schedule was developed to complete material sampling before winter. The project started about 1.5 months later, and rather than shortening Tasks 1 and 2 to complete sampling before winter, the Principal Investigator decided to extend these tasks and complete field sampling in 2014. This change should not affect the completion date of the project provided appropriate materials are identified and sampling can be completed during the 2014 construction season.

#### **Attach / Insert Gantt Chart and Other Project Documentation**

Task/Activity	2013							2014							2015						
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Task 1. Synthesis of Current Research.	P	P	P																		
	A	A	A	A	A	A	C														
Task 2. Work Plan Development.		P	P																		
			A	A	A	A	C														
Task 3. Interim Presentation and Project Memorandum.				P																	
				A	A	A	A	A	A	C											
Task 4. Execution of Work Plan and Analysis of Results.					P	P	P	P	P	P	P	P	P	P	P	P					
Task 5. Project Deliverables.																P	P	P	P		
Task 6. Final Report and Project Closeout Activities.																			P	P	P
Presentations				P																	
Quarterly Reports				P			P			P			P			P			P		
				C			C			C											
Project Memorandum				P				C													
Draft Final Report																				P	
Revised Final Report																					P

(\*enter text)

For WisDOT Use Only	
Staff Receiving QPR J. Walejko	Date Received (m/d/yyyy) 7/6/2014
Staff Approving QPR	Date Approved (m/d/yyyy)